

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations (40 C.F.R. § 122.48) requires that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Central Valley Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement federal and California regulations.

I. GENERAL MONITORING PROVISIONS

- A. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of the Central Valley Water Board.
- B. Final effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to mixing with the receiving waters. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.
- C. Chemical, bacteriological, and bioassay analyses of any material required by this Order shall be conducted by a laboratory accredited for such analyses by the State Water Resources Control Board (State Water Board), Division of Drinking Water (DDW; formerly the Department of Public Health). Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Central Valley Water Board. In the event an accredited laboratory is not available to the Discharger for any onsite field measurements such as pH, dissolved oxygen (DO), turbidity, temperature, and residual chlorine, such analyses performed by a non-accredited laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program for any onsite field measurements such as pH, DO, turbidity, temperature, and residual chlorine must be kept onsite in the treatment facility laboratory and shall be available for inspection by Central Valley Water Board staff. The Discharger must demonstrate sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform these field measurements. The Quality Assurance-Quality Control Program must conform to U.S. EPA guidelines or to procedures approved by the Central Valley Water Board.
- D. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least yearly, to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.
- E. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this Monitoring and Reporting Program.
- F. Laboratories analyzing monitoring samples shall be certified by DDW, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.
- G. The Discharger shall ensure that the results of the Discharge Monitoring Report-Quality Assurance (DMR-QA) Study or the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Resources Control Board at the following address:

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State Water Resources Control Board
Quality Assurance Program Officer
Office of Information Management and Analysis
1001 I Street, Sacramento, CA 95814

- H. The Discharger shall file with the Central Valley Water Board technical reports on self-monitoring performed according to the detailed specifications contained in this Monitoring and Reporting Program.
- I. The results of all monitoring required by this Order shall be reported to the Central Valley Water Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order. Unless otherwise specified, discharge flows shall be reported in terms of the monthly average and the daily maximum discharge flows.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	A location where a representative sample of the influent into the Facility can be collected prior to entering the treatment process (location on east side of influent building as shown in Attachment C)
001 and 002	EFF-001 and EFF-002 (EFF-001/EFF-002)	Downstream from the last connection through which wastes can be admitted to the outfall before being discharged to the Feather River (EFF-001) at Discharge Point 001 or the disposal ponds (EFF-002) at Discharge Point 002. Discharge Point 001: Latitude: 39° 05' 30.29" N Longitude: 121° 35' 53.79" W Discharge Point 002: Latitude: 39° 05' 17.60" N Longitude: 121° 35' 47.71" W
--	LND-001	Monitoring within Disposal Pond 1
--	LND-002	Monitoring within Disposal Pond 2
--	LND-003	Monitoring within Disposal Pond 3
--	LND-004	Monitoring within Disposal Pond 4
--	LND-005	Monitoring within Disposal Pond 5
--	LND-006	Monitoring within Disposal Pond 6
--	RSW-001	Approximately 500 feet upstream of the diffuser outfall, in the middle of the Feather River by boat, upstream of the disposal ponds.
--	RSW-002	Approximately 1,200 feet downstream of the diffuser outfall, in the middle of the Feather River by boat.
--	SPL-001	Location where a representative sample of the municipal supply water can be obtained. If this is impractical, water quality data provided by the water supplier(s) may be used.
--	GW-001	Groundwater monitoring well (identified as MW-01 in the Discharger's Hydrogeologic Assessment Workplan).
--	GW-002	Groundwater monitoring well (identified as MW-02 in the Discharger's Hydrogeologic Assessment Workplan).
--	GW-003	Groundwater monitoring well (identified as MW-03 in the Discharger's Hydrogeologic Assessment Workplan).

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Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	GW-004	Groundwater monitoring well (identified as MW-04 in the Discharger's Hydrogeologic Assessment Workplan).
--	GW-007	Groundwater monitoring well (identified as MW-07 in the Discharger's Hydrogeologic Assessment Workplan).
--	GW-008	Groundwater monitoring well (identified as MW-08 in the Discharger's Hydrogeologic Assessment Workplan).
--	BIO-001	A location where a representative sample of the biosolids can be obtained.

The North latitude and West longitude information in Table E-1 are approximate for administrative purposes.

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location INF-001

- The Discharger shall monitor influent to the Facility at Monitoring Location INF-001 as follows:

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	Meter	Continuous	--
Conventional Pollutants				
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	24-hr Composite ^{1,2}	3/Week	3
pH	standard units	Grab	1/Day	3
Total Suspended Solids	mg/L	24-hr Composite ^{1,2}	3/Week	3
Non-Conventional Pollutants				
Ammonia Nitrogen, Total (as N)	mg/L	24-hr Composite ¹	1/Week	3
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Quarter	3
Phosphorus, Total (as P)	mg/L	24-hr Composite ¹	1/Month	3

¹ 24-hour flow proportional composite.

² BOD₅ and TSS samples shall be collected on the same day as the effluent samples.

³ Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136; or by methods approved by the Central Valley Water Board or the State Water Board.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001/EFF-002

- When discharging at Discharge Points 001 and 002, the Discharger shall monitor treated wastewater at Monitoring Location EFF-001/EFF-002, as follows. EFF-001 and EFF-002 are located at the same monitoring location. For reporting purposes, the Discharger shall use EFF-001 as the monitoring location when discharging to Discharge Point 001 and shall use EFF-002 as the monitoring location when discharging to Discharge Point 002. If

more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level:

Table E-3. Effluent Monitoring – Monitoring Location EFF-001/EFF-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Discharge Location	Date and Time	--	When switching discharge points	--
Average Depth of Water Over Diffuser	Feet	Calculate	1/Day ¹	--
		Measure	1/Week	--
Flow	MGD	Meter	Continuous	--
Conventional Pollutants				
Biochemical Oxygen Demand (5-day @ 20° C)	mg/L	24-hr Composite ²	3/Week	3
	lbs/day	Calculate	3/Week	--
	% removal	Calculate	1/Month	--
pH	standard units	Grab	1/Day ^{4,5}	3
Total Suspended Solids	mg/L	24-hr Composite ²	3/Week	3
	lbs/day	Calculate	3/Week	--
	% removal	Calculate	1/Month	--
Priority Pollutants				
Copper, Total Recoverable	µg/L	24-hr Composite ²	1/Month	3,6
Dichlorobromomethane	µg/L	Grab	1/Month	3,6
Mercury, Total Recoverable	µg/L	Grab	1/Month	3,6,7
Non-Conventional Pollutants				
Ammonia Nitrogen, Total (as N)	mg/L	24-hr Composite ²	2/Week ^{4,8}	3
	lbs/day	Calculate	2/Week	--
Chlorine, Total Residual	mg/L	Meter	Continuous ⁹	3,10
Chlorpyrifos	µg/L	24-hr Composite ²	1/Year	3,11
Diazinon	µg/L	24-hr Composite ²	1/Year	3,11
Dissolved Oxygen	mg/L	Grab	3/Week ⁵	3
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Month	3
Hardness, Total (as CaCO ₃)	mg/L	Grab	1/Month ¹²	3
Nitrate Nitrogen, Total (as N)	mg/L	Grab	1/Month ¹⁴	4
Nitrite Nitrogen, Total (as N)	mg/L	Grab	1/Month ¹⁴	4
Nitrate Plus Nitrite (as N)	mg/L	Calculate	1/Month	--
Phosphorus, Total (as P)	mg/L	24-hr Composite ²	1/Month	3
Settleable Solids	ml/L	Grab	5/Week ⁹	3
Sodium Bisulfate	mg/L	Meter	Continuous ⁹	3
Temperature	°F	Grab	3/Week ^{4,5}	3
Total Coliform Organisms	MPN/100 mL	Grab	3/Week ^{14,15}	3

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Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Dissolved Solids	mg/L	Grab	1/Month	3

- 1 When discharging to the Feather River through the diffuser at Discharge Point 001, daily confirmation of flow meeting or exceeding an average of 0.8 feet above the diffuser shall be determined using correlated California Data Exchange Center (CDEC) data from the Feather River at Gridley (GRL) and/or Yuba River at Marysville (MRY) or flow and stage at Feather River at Boyd's Landing (FBL) or Feather River at Star Bend (FSB).
- 2 24-hour flow proportional composite.
- 3 Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods requested by the Discharger that have been approved by the Central Valley Water Board or the State Water Board.
- 4 pH and temperature shall be recorded at the time of ammonia sample collection.
- 5 A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.
- 6 For priority pollutant constituents the reporting level shall be consistent with Sections 2.4.2 and 2.4.3 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (See Attachment E, Table E-8).
- 7 Unfiltered methyl mercury and total mercury samples shall be taken using clean hands/dirty hands procedures, as described in U.S. EPA method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels, for collection of equipment blanks (section 9.4.4.2). The analysis of methyl mercury and total mercury shall be by U.S. EPA method 1630 and 1631 (Revision E), respectively, with a reporting limit of 0.05 ng/L for methyl mercury and 0.5 ng/L for total mercury.
- 8 Concurrent with whole effluent toxicity monitoring.
- 9 Monitoring only required during effluent discharge to Discharge Point 001.
- 10 Total residual chlorine must be monitored using an analytical method that is sufficiently sensitive to measure at the permitted level of 0.01 mg/L.
- 11 Chlorpyrifos and diazinon shall be sampled using U.S. EPA Method 625M, Method 8141, or equivalent gas chromatography/mass spectrometry (GC/MS) method with a lower Reporting Limit than the Basin Plan Water Quality Objectives of 0.015 µg/L and 0.1 µg/L for chlorpyrifos and diazinon, respectively.
- 12 Hardness samples shall be collected concurrently with metals samples.
- 13 Monitoring for nitrite and nitrate shall be conducted concurrently.
- 14 Samples for total coliform organisms may be collected at any point following disinfection, provided that samples are dechlorinated at the time of collection. The Discharger shall report the sampling location(s) in the monthly self-monitoring report (SMR).
- 15 The monitoring frequency shall be 1/week during effluent discharge to Discharge Point 002.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity Testing. The Discharger shall conduct acute toxicity testing to determine whether the effluent is contributing acute toxicity to the receiving water. The Discharger shall meet the following acute toxicity testing requirements:

1. Monitoring Frequency – The Discharger shall perform monthly acute toxicity testing when discharging at Discharge Point 001, concurrent with effluent ammonia sampling. Because the chronic toxicity test provides both acute and chronic toxicity information concurrently, acute toxicity testing is not necessary when chronic toxicity testing is being conducted in the same period.
2. Sample Types – The Discharger may use flow-through, static non-renewal, or static renewal testing. For static non-renewal and static renewal testing, the samples shall be flow proportional 24-hour composites and shall be representative of the volume and

quality of the discharge. The effluent samples shall be taken at Monitoring Location EFF-001 when discharging at Discharge Point 001.

3. Test Species – Test species shall be fathead minnows (*Pimephales promelas*).
 4. Methods – The acute toxicity testing samples shall be analyzed using EPA-821-R-02-012, Fifth Edition. Temperature, total residual chlorine, and pH shall be recorded at the time of sample collection. The Discharger is authorized to adjust the effluent pH to suppress the level of unionized (free) ammonia. This adjustment shall be achieved through the addition of MOPS (3-N morpholino propane sulfonic acid) buffer. If other specific identifiable substances in the discharge can be demonstrated by the Discharger as being rapidly rendered harmless upon discharge to the receiving water, compliance with acute toxicity limit may be determined after the test samples are adjusted to remove the influence of those substances. Written approval from the Executive Officer must be obtained to authorize such an adjustment.
 5. Test Failure – If an acute toxicity test does not meet all test acceptability criteria, as specified in the test method, the Discharger must re-sample and re-test as soon as possible, not to exceed 7 days following notification of test failure.
- B. Chronic Toxicity Testing.** The Discharger shall meet the following chronic toxicity testing requirements:
1. Monitoring Frequency – The Discharger shall perform routine quarterly chronic toxicity testing when discharging at Discharge Point 001. If the result of the routine chronic toxicity testing event exhibits toxicity, demonstrated by a result greater than 12 TUc (as 100/NOEC) AND a percent effect greater than 25 percent at 8.3 percent effluent, the Discharger has the option of conducting two additional compliance monitoring events and perform chronic toxicity testing using the species that exhibited toxicity in order to calculate a median. The optional compliance monitoring events shall occur at least one week apart, and the final monitoring event shall be initiated no later than 6 weeks from the routine monitoring event that exhibited toxicity.
 2. Sample Types – Effluent samples shall be flow proportional 24-hour composites and shall be representative of the volume and quality of the discharge. The effluent samples shall be taken at Monitoring Location EFF-001 or at the farthest end of the dechlorination channel, approximately three feet prior to Monitoring Location EFF-001, when discharging at Discharge Point 001. The receiving water control shall be a grab sample obtained from Monitoring Location RSW-001, as identified in this Monitoring and Reporting Program.
 3. Sample Volumes – Adequate sample volumes shall be collected to provide renewal water to complete the test in the event that the discharge is intermittent.
 4. Test Species – The testing shall be conducted using the most sensitive species. The Discharger shall conduct chronic toxicity tests with the water flea (*Ceriodaphnia dubia*), unless otherwise specified in writing by the Executive Officer.
 5. Methods – The presence of chronic toxicity shall be estimated as specified in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition*, EPA/821-R-02-013, October 2002.
 6. Reference Toxicant – As required by the SIP, all chronic toxicity tests shall be conducted with concurrent testing with a reference toxicant and shall be reported with the chronic toxicity test results.

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7. **Dilutions** – For routine and compliance chronic toxicity monitoring, the chronic toxicity testing shall be performed using the dilution series identified in Table E-4 when discharging at Discharge Point 001. For TRE monitoring, the chronic toxicity testing shall be performed using the dilution series identified in Table E-4 when discharging at Discharge Point 001, unless an alternative dilution series is detailed in the submitted TRE Action Plan. A receiving water control or laboratory water control may be used as the diluent.

Table E-4. Chronic Toxicity Testing Dilution Series – Discharge Point 001

Sample	Dilutions ^a (%)					Control
	33.2	16.6	8.3	4.2	2.1	
% Effluent	33.2	16.6	8.3	4.2	2.1	0
% Control Water	66.8	83.4	91.7	95.8	97.9	100

^a Receiving water control or laboratory water control may be used as the diluent.

8. **Test Failure** – The Discharger must re-sample and re-test as soon as possible, but no later than fourteen (14) days after receiving notification of a test failure. A test failure is defined as follows:
 - a. The reference toxicant test or the effluent test does not meet all test acceptability criteria as specified in the *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition*, EPA/821-R-02-013, October 2002 (Method Manual), and its subsequent amendments or revisions; or
 - b. The percent minimum significant difference (PMSD) measured for the test exceeds the upper PMSD bound variability criterion in the Method Manual.
- C. **WET Testing Notification Requirements.** The Discharger shall notify the Central Valley Water Board within 24-hours after the receipt of test results exceeding the monitoring trigger during regular or accelerated monitoring, or an exceedance of the acute toxicity effluent limitation.
- D. **WET Testing Reporting Requirements.** All toxicity test reports shall include the contracting laboratory's complete report provided to the Discharger and shall be in accordance with the appropriate "Report Preparation and Test Review" sections of the method manuals. At a minimum, whole effluent toxicity monitoring shall be reported as follows:
 1. **Chronic WET Reporting.** Routine and compliance chronic toxicity monitoring results shall be reported to the Central Valley Water Board with the quarterly SMR, and shall contain, at minimum:
 - a. The results expressed in TUC, measured as 100/NOEC, and also measured as 100/LC50, 100/EC25, 100/IC25, and 100/IC50, as appropriate.
 - b. The statistical methods used to calculate endpoints;
 - c. The statistical output page, which includes the calculation of the percent minimum significant difference (PMSD);
 - d. The dates of sample collection and initiation of each toxicity test; and
 - e. The results compared to the numeric toxicity monitoring trigger.

Additionally, the monthly SMR's shall contain an updated chronology of chronic toxicity test results expressed in TUC, and organized by test species, type of test (survival,

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growth or reproduction), and monitoring type, i.e., routine, compliance, TES, or TRE monitoring.

2. **Acute WET Reporting.** Acute toxicity test results shall be submitted with the monthly discharger self-monitoring reports and reported as percent survival.
 3. **TRE Reporting.** Reports for TREs shall be submitted in accordance with the schedule contained in the Discharger's approved TRE Workplan, or as amended by the Discharger's TRE Action Plan.
 4. **Quality Assurance (QA).** The Discharger must provide the following information for QA purposes:
 - a. Results of the applicable reference toxicant data with the statistical output page giving the species, NOEC, LOEC, type of toxicant, dilution water used, concentrations used, PMSD, and dates tested.
 - b. The reference toxicant control charts for each endpoint, which include summaries of reference toxicant tests performed by the contracting laboratory.
 - c. Any information on deviations or problems encountered and how they were dealt with.
- E. **Most Sensitive Species Screening.** The Discharger shall perform rescreening to re-evaluate the most sensitive species if there is a significant change in the nature of the discharge. If there are no significant changes during the permit term, a rescreening must be performed prior to permit reissuance and results submitted with the Report of Waste Discharge.
1. **Frequency of Testing for Species Sensitivity Screening.** Species sensitivity screening for chronic toxicity shall include, at a minimum, chronic WET testing four consecutive calendar quarters using the water flea (*Ceriodaphnia dubia*), fathead minnow (*Pimephales promelas*), and green alga (*Pseudokirchneriella subcapitata*). The tests shall be performed using 8.3 percent effluent and one control. If the first two species sensitivity re-screening events result in no change in the most sensitive species, the Discharger may cease the species sensitive re-screening testing and the most sensitive species will remain unchanged.
 2. **Determination of Most Sensitive Species.** If a single test in the species sensitivity screening testing exceeds 12 TUc (as 100/NOEC), then the species used in that test shall be established as the most sensitive species. If there is more than a single test that exceeds 12 TUc (as 100/NOEC), then the species exceeding 12 TUc (as 100/NOEC) that exhibits the highest percent effect shall be established as the most sensitive species. If none of the tests in the species sensitivity screening exceeds 12 TUc (as 100/NOEC), but at least one of the species exhibits a percent effect greater than 10 percent at 8.3% effluent, then the single species that exhibits the highest percent effect at 8.3% effluent shall be established as the most sensitive species. In all other circumstances, the Executive Officer shall have discretion to determine which single species is the most sensitive considering the test results from the species sensitivity screening.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

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VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Locations RSW-001 and RSW-002

1. The Discharger shall monitor the Feather River at Monitoring Locations RSW-001 and RSW-002 when the Feather River is flowing within its normal channel at a flow less than approximately 25,000 cfs during the weekly monitoring period Sunday through Saturday. Receiving water monitoring is not required when discharging at Discharge Point 002.

Table E-5. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Conventional Pollutants				
Fecal Coliform Organisms	MPN/100 mL	Grab	1/Quarter	1
pH	standard units	Grab	1/Week	1,2
Non-Conventional Pollutants				
Dissolved Oxygen	mg/L	Grab	1/Week	1,2
	% Saturation	Calculate	1/Week	3
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Week	1,2
Hardness	mg/L	Grab	1/Month	1,2
Temperature	°F	Grab	1/Week	1,2
Turbidity	NTU	Grab	1/Week	1,2

- ¹ Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
- ² A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.
- ³ Temperature shall be determined at the time of sample collection for use in determining saturation concentration. Any additional factors or parameters used in determining saturation concentration shall also be reported. Report both saturation and saturation concentration.

2. In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by Monitoring Locations RSW-001 and RSW-002 when discharging to the Feather River. Attention shall be given to the presence or absence of:

- a. Floating or suspended matter;
- b. Discoloration;
- c. Bottom deposits;
- d. Aquatic life;
- e. Visible films, sheens, or coatings;
- f. Fungi, slimes, or objectionable growths; and
- g. Potential nuisance conditions.

Notes on receiving water conditions shall be summarized in the monitoring report.

B. Monitoring Locations GW-001, GW-002, GW-003, GW-004, GW-007, and GW-008

1. Prior to construction and/or beginning a sampling program of any new groundwater monitoring wells, the Discharger shall submit plans and specifications to the Central Valley Water Board for approval. Once installed, all new wells shall be added to the

monitoring network (which currently consists of Monitoring Well Nos. GW-001, GW-002, GW-003, GW-004, GW-007, and GW-008) and shall be sampled and analyzed according to the schedule below. All samples shall be collected using approved EPA methods. Water table elevations shall be calculated to determine groundwater gradient and direction of flow.

2. Prior to sampling, the groundwater elevations shall be measured and the wells shall be purged of at least three well volumes or until temperature, pH, and electrical conductivity have stabilized. Depth to groundwater shall be measured to the nearest 0.01 feet. Groundwater monitoring at GW-001, GW-002, GW-003, GW-004, GW-007, GW-008, and any new groundwater monitoring wells shall include, at a minimum, the following:

Table E-6. Groundwater Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency ¹	Required Analytical Test Method
Depth to Groundwater	±0.01 feet	Measurement	2/Year	--
Groundwater Elevation ²	±0.01 feet	Calculate	2/Year	--
Gradient	feet/feet	Calculate	2/Year	--
Gradient Direction	degrees	Calculate	2/Year	--
Electrical Conductivity @ 25°C	µmhos/cm	Grab	2/Year	3,4
pH	standard units	Grab	2/Year	3,4
Total Coliform Organisms	MPN/100 mL	Grab	2/Year	3
Nitrate Nitrogen, Total (as N)	mg/L	Grab	2/Year	3
Ammonia Nitrogen, Total (as N)	mg/L	Grab	2/Year	3

- ¹ Monitoring is required only during the calendar semi-annual period that effluent is directed to the disposal ponds for more than one day per semi-annual period. During those calendar semi-annual periods that effluent is not directed to the disposal ponds and monitoring is not performed, the Discharger shall indicate as such in the monthly SMR.
- ² Groundwater elevation shall be determined based on depth-to-water measurements from a surveyed measuring point elevation on the well. The groundwater elevation shall be used to calculate the direction and gradient of groundwater flow, which must be reported.
- ³ Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
- ⁴ A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

IX. OTHER MONITORING REQUIREMENTS

A. Biosolids

1. Monitoring Location BIO-001

- a. A composite sample of sludge shall be collected quarterly at Monitoring Location BIO-001 in accordance with EPA's *POTW Sludge Sampling and Analysis Guidance Document*, August 1989, and tested for priority pollutants (excluding asbestos).
- b. Biosolids monitoring shall be conducted using the methods in Test Methods for Evaluating Solid Waste, Physical/Chemical methods (EPA publication SW-846), as required in 40 C.F.R. section 503.8(b)(4). All results must be reported on a 100% dry weight basis. Records of all analyses must state on each page of the laboratory report whether the results are expressed in "100% dry weight" or "as is."

B. Municipal Water Supply

1. Monitoring Location SPL-001

- a. The Discharger shall monitor the municipal water supply at SPL-001 as follows:

Table E-7. Municipal Water Supply Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Dissolved Solids ^{1,2}	mg/L	Grab	1/Quarter	³
Electrical Conductivity @ 25°C ^{1,2}	µmhos/cm	Grab	1/Quarter	³

¹ A group of sampling locations shall be established where a representative sample of the municipal water supply can be obtained from each of the independent water systems. Water quality shall be a flow weighted average of the sample locations. Municipal water supply samples shall be collected at approximately the same time as effluent samples.

² If the water supply is from more than one source, the total dissolved solids and electrical conductivity shall be reported as a weighted average and include copies of supporting calculations.

³ Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

C. Effluent and Receiving Water Characterization

- 2020 Quarterly Monitoring.** Quarterly samples shall be collected from the effluent (Monitoring Location EFF-001/EFF-002 for discharges at Discharge Point 001 and 002 and upstream receiving water (RSW-001) and analyzed for the constituents listed in Table E-8, below. Quarterly monitoring shall be conducted for one year beginning in the first quarter 2020 (four consecutive samples, evenly distributed throughout the year) at EFF-001/EFF-002, RSW-001. The results of such monitoring be submitted to the Central Valley Water Board with the quarterly self-monitoring reports. Each individual monitoring event shall provide representative sample results for the effluent and upstream receiving water.
- Concurrent Sampling.** Effluent and receiving water sampling shall be performed at approximately the same time, on the same date.
- Sample Type.** All receiving water samples shall be taken as grab samples. Effluent samples shall be taken as described in Table E-8, below.
- Analytical Methods Report.** The Discharger shall submit a report electronically via CIWQS submittal outlining reporting levels (RL's), method detection limits (MDL's), and analytical methods for all constituents to be monitored in the influent, effluent, receiving water, and characterization monitoring by the due date shown in the Technical Reports Table. The Discharger shall comply with the monitoring and reporting requirements for CTR constituents as outlined in section 2.3 and 2.4 of the SIP. The maximum required reporting levels for priority pollutant constituents shall be based on the Minimum Levels (ML's) contained in Appendix 4 of the SIP, determined in accordance with Section 2.4.2 and Section 2.4.3 of the SIP. In accordance with Section 2.4.2 of the SIP, when there is more than one ML value for a given substance, the Central Valley Water Board shall include as RL's, in the permit, all ML values, and their associated analytical methods, listed in Appendix 4 that are below the calculated effluent limitation. The Discharger may select any one of those cited analytical methods for compliance determination. If no ML value is below the effluent limitation, then the Central Valley Water Board shall select as the RL, the lowest ML value, and its associated analytical method, listed in Appendix 4 for inclusion in the permit. Table E-8 below provides required maximum reporting levels in accordance with the SIP.

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Table E-8. Effluent and Receiving Water Characterization Monitoring

Parameter	Units	Effluent Sample Type	Maximum Reporting Level ¹
2-Chloroethyl vinyl ether	µg/L	Grab	1
Acrolein	µg/L	Grab	2
Acrylonitrile	µg/L	Grab	2
Benzene	µg/L	Grab	0.5
Bromoform	µg/L	Grab	0.5
Carbon Tetrachloride	µg/L	Grab	0.5
Chlorobenzene	µg/L	Grab	0.5
Chloroethane	µg/L	Grab	0.5
Chloroform	µg/L	Grab	2
Chloromethane	µg/L	Grab	2
Dibromochloromethane	µg/L	Grab	0.5
Dichlorobromomethane ²	µg/L	Grab	0.5
Dichloromethane	µg/L	Grab	2
Ethylbenzene	µg/L	Grab	2
Hexachlorobenzene	µg/L	Grab	1
Hexachlorobutadiene	µg/L	Grab	1
Hexachloroethane	µg/L	Grab	1
Methyl bromide (Bromomethane)	µg/L	Grab	1
Naphthalene	µg/L	Grab	10
3-Methyl-4-Chlorophenol	µg/L	Grab	
Tetrachloroethene	µg/L	Grab	0.5
Toluene	µg/L	Grab	2
trans-1,2-Dichloroethylene	µg/L	Grab	1
Trichloroethene	µg/L	Grab	2
Vinyl chloride	µg/L	Grab	0.5
Methyl-tert-butyl ether (MTBE)	µg/L	Grab	
Trichlorofluoromethane	µg/L	Grab	
1,1,1-Trichloroethane	µg/L	Grab	0.5
1,1,2- Trichloroethane	µg/L	Grab	0.5
1,1-dichloroethane	µg/L	Grab	0.5
1,1-dichloroethylene	µg/L	Grab	0.5
1,2-dichloropropane	µg/L	Grab	0.5
1,3-dichloropropylene	µg/L	Grab	0.5
1,1,2,2-tetrachloroethane	µg/L	Grab	0.5
1,1,2-Trichloro-1,2,2-Trifluoroethane	µg/L	Grab	0.5
1,2,4-trichlorobenzene	µg/L	Grab	1
1,2-dichloroethane	µg/L	Grab	0.5
1,2-dichlorobenzene	µg/L	Grab	0.5
1,3-dichlorobenzene	µg/L	Grab	0.5
1,4-dichlorobenzene	µg/L	Grab	0.5
Styrene	µg/L	Grab	
Xylenes	µg/L	Grab	
1,2-Benzanthracene	µg/L	Grab	5
1,2-Diphenylhydrazine	µg/L	Grab	1
2-Chlorophenol	µg/L	Grab	5
2,4-Dichlorophenol	µg/L	Grab	5
2,4-Dimethylphenol	µg/L	Grab	2
2,4-Dinitrophenol	µg/L	Grab	5

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Parameter	Units	Effluent Sample Type	Maximum Reporting Level ¹
2,4-Dinitrotoluene	µg/L	Grab	5
2,4,6-Trichlorophenol	µg/L	Grab	10
2,6-Dinitrotoluene	µg/L	Grab	5
2-Nitrophenol	µg/L	Grab	10
2-Chloronaphthalene	µg/L	Grab	10
3,3'-Dichlorobenzidine	µg/L	Grab	5
3,4-Benzofluoranthene	µg/L	Grab	10
4,6-Dinitro-2-methylphenol	µg/L	Grab	10
4-Nitrophenol	µg/L	Grab	10
4-Bromophenyl phenyl ether	µg/L	Grab	10
4-Chlorophenyl phenyl ether	µg/L	Grab	5
Acenaphthene	µg/L	Grab	1
Acenaphthylene	µg/L	Grab	10
Anthracene	µg/L	Grab	10
Benzidine	µg/L	Grab	5
Benzo(a)pyrene (3,4-Benzopyrene)	µg/L	Grab	2
Benzo(g,h,i)perylene	µg/L	Grab	5
Benzo(k)fluoranthene	µg/L	Grab	2
Bis(2-chloroethoxy) methane	µg/L	Grab	5
Bis(2-chloroethyl) ether	µg/L	Grab	1
Bis(2-chloroisopropyl) ether	µg/L	Grab	10
Bis(2-ethylhexyl) phthalate ³	µg/L	Grab	5
Butyl benzyl phthalate	µg/L	Grab	10
Chrysene	µg/L	Grab	5
Di-n-butylphthalate	µg/L	Grab	10
Di-n-octylphthalate	µg/L	Grab	10
Dibenzo(a,h)-anthracene	µg/L	Grab	0.1
Diethyl phthalate	µg/L	Grab	10
Dimethyl phthalate	µg/L	Grab	10
Fluoranthene	µg/L	Grab	10
Fluorene	µg/L	Grab	10
Hexachlorocyclopentadiene	µg/L	Grab	5
Indeno(1,2,3-c,d)pyrene	µg/L	Grab	0.05
Isophorone	µg/L	Grab	1
N-Nitrosodiphenylamine	µg/L	Grab	1
N-Nitrosodimethylamine	µg/L	Grab	5
N-Nitrosodi-n-propylamine	µg/L	Grab	5
Nitrobenzene	µg/L	Grab	10
Pentachlorophenol	µg/L	Grab	1
Phenanthrene	µg/L	Grab	5
Phenol	µg/L	Grab	1
Pyrene	µg/L	Grab	10
Aluminum	µg/L	24-hr Composite ⁴	
Antimony	µg/L	24-hr Composite ⁴	5
Arsenic	µg/L	24-hr Composite ⁴	10
Asbestos	MFL	24-hr Composite ⁴	
Barium	µg/L	24-hr Composite ⁴	
Beryllium	µg/L	24-hr Composite ⁴	2
Cadmium	µg/L	24-hr Composite ⁴	0.5
Chromium (Total)	µg/L	24-hr Composite ⁴	50

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Parameter	Units	Effluent Sample Type	Maximum Reporting Level ¹
Chromium (VI)	µg/L	24-hr Composite ⁴	10
Copper ²	µg/L	24-hr Composite ⁴	5
Cyanide	µg/L	Grab	5
Fluoride	µg/L	24-hr Composite ⁴	
Iron	µg/L	24-hr Composite ⁴	
Lead	µg/L	24-hr Composite ⁴	0.5
Mercury ²	µg/L	Grab	0.5
Manganese	µg/L	24-hr Composite ⁴	
Molybdenum	µg/L	24-hr Composite ⁴	
Nickel	µg/L	24-hr Composite ⁴	20
Selenium	µg/L	24-hr Composite ⁴	5
Silver	µg/L	24-hr Composite ⁴	1
Thallium	µg/L	24-hr Composite ⁴	1
Tributyltin	µg/L	24-hr Composite ⁴	
Zinc	µg/L	24-hr Composite ⁴	20
4,4'-DDD	µg/L	24-hr Composite ⁴	0.05
4,4'-DDE	µg/L	24-hr Composite ⁴	0.05
4,4'-DDT	µg/L	24-hr Composite ⁴	0.01
alpha-Endosulfan	µg/L	24-hr Composite ⁴	0.02
alpha-Hexachlorocyclohexane (BHC)	µg/L	24-hr Composite ⁴	0.01
Alachlor	µg/L	24-hr Composite ⁴	
Aldrin	µg/L	24-hr Composite ⁴	0.005
beta-Endosulfan	µg/L	24-hr Composite ⁴	0.01
beta-Hexachlorocyclohexane	µg/L	24-hr Composite ⁴	0.005
Chlordane	µg/L	24-hr Composite ⁴	0.1
delta-Hexachlorocyclohexane	µg/L	24-hr Composite ⁴	0.005
Dieldrin	µg/L	24-hr Composite ⁴	0.01
Endosulfan sulfate	µg/L	24-hr Composite ⁴	0.01
Endrin	µg/L	24-hr Composite ⁴	0.01
Endrin Aldehyde	µg/L	24-hr Composite ⁴	0.01
Heptachlor	µg/L	24-hr Composite ⁴	0.01
Heptachlor Epoxide	µg/L	24-hr Composite ⁴	0.02
Lindane (gamma-Hexachlorocyclohexane)	µg/L	24-hr Composite ⁴	0.5
PCB-1016	µg/L	24-hr Composite ⁴	0.5
PCB-1221	µg/L	24-hr Composite ⁴	0.5
PCB-1232	µg/L	24-hr Composite ⁴	0.5
PCB-1242	µg/L	24-hr Composite ⁴	0.5
PCB-1248	µg/L	24-hr Composite ⁴	0.5
PCB-1254	µg/L	24-hr Composite ⁴	0.5
PCB-1260	µg/L	24-hr Composite ⁴	0.5
Toxaphene	µg/L	24-hr Composite ⁴	
Atrazine	µg/L	24-hr Composite ⁴	
Bentazon	µg/L	24-hr Composite ⁴	
Carbofuran	µg/L	24-hr Composite ⁴	
2,4-D	µg/L	24-hr Composite ⁴	
Dalapon	µg/L	24-hr Composite ⁴	
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	24-hr Composite ⁴	
Di(2-ethylhexyl)adipate	µg/L	24-hr Composite ⁴	

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Parameter	Units	Effluent Sample Type	Maximum Reporting Level ¹
Dinoseb	µg/L	24-hr Composite ⁴	
Diquat	µg/L	24-hr Composite ⁴	
Endothal	µg/L	24-hr Composite ⁴	
Ethylene Dibromide	µg/L	24-hr Composite ⁴	
Methoxychlor	µg/L	24-hr Composite ⁴	
Molinate (Ordram)	µg/L	24-hr Composite ⁴	
Oxamyl	µg/L	24-hr Composite ⁴	
Picloram	µg/L	24-hr Composite ⁴	
Simazine (Princep)	µg/L	24-hr Composite ⁴	
Thiobencarb	µg/L	24-hr Composite ⁴	
2,3,7,8-TCDD (Dioxin)	µg/L	24-hr Composite ⁴	
2,4,5-TP (Silvex)	µg/L	24-hr Composite ⁴	
Diazinon ²	µg/L	24-hr Composite ⁴	
Chlorpyrifos ²	µg/L	24-hr Composite ⁴	
Ammonia (as N) ²	mg/L	24-hr Composite ⁴	
Boron	µg/L	24-hr Composite ⁴	
Chloride	mg/L	24-hr Composite ⁴	
Flow ²	MGD	Meter	
Hardness (as CaCO ₃) ²	mg/L	Grab	
Foaming Agents (MBAS)	µg/L	24-hr Composite ⁴	
Mercury, Methyl	ng/L	Grab	
Nitrate (as N) ²	mg/L	24-hr Composite ⁴	
Nitrite (as N) ²	mg/L	24-hr Composite ⁴	
pH ²	Std Units	Grab	
Phosphorus, Total (as P) ²	mg/L	24-hr Composite ⁴	
Specific conductance (EC) ²	µmhos/cm	24-hr Composite ⁴	
Sulfate	mg/L	24-hr Composite ⁴	
Sulfide (as S)	mg/L	24-hr Composite ⁴	
Sulfite (as SO ₃)	mg/L	24-hr Composite ⁴	
Temperature ²	°C	Grab	
Total Dissolved Solids (TDS) ²	mg/L	24-hr Composite ⁴	

¹ The reporting levels required in this table for priority pollutant constituents are established based on Section 2.4.2 and Appendix 4 of the SIP.

² The Discharger is not required to conduct effluent monitoring for constituents that have already been sampled in a given month, as required in Tables E-3 or E-4, except for hardness, pH, and temperature, which shall be conducted concurrently with the effluent sampling.

³ In order to verify if bis (2-ethylhexyl) phthalate is truly present, the Discharger shall take steps to assure that sample containers, sampling apparatus, and analytical equipment are not sources of the detected contaminant.

⁴ 24-hour flow proportional composite.

D. Disposal Ponds

1. Monitoring Locations LND-001, LND-002, LND-003, LND-004, LND-005, and LND-006

- a. The Discharger shall monitor treated wastewater discharge to the disposal ponds at Monitoring Locations LND-001, LND-002, LND-003, LND-004, LND-005, and LND-006 as follows:

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Table E-9. Disposal Pond Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen	mg/L	Grab	1/Week	1,2
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Week	1,2
Freeboard	feet ^{3,4}	Measure	1/Week	--
Odors ⁵	--	Observation	1/Week	--

- ¹ Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
- ² A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.
- ³ To be measured vertically to the lowest non-spillway point of overflow from the perimeter berm of pond system.
- ⁴ Include estimation of volume of wastewater in each pond.
- ⁵ As detected of the furthest downwind pond in service.
- ⁶ Monitoring of individual disposal ponds shall only occur when there is more than 1 foot of effluent present in the disposal pond.

2. The Discharger shall inspect the condition of the ponds once per week and record visual observations in a bound logbook. Notations shall include observations of whether weeds are developing in the water or along the bank, and their location; whether burrowing animals or insects are present; and the color of the ponds (e.g., dark sparkling green, dull green, yellow, gray, tan, brown), and if there is damage to the ponds due to the Feather River flooding (e.g., which ponds are damaged and location of the damage). A summary of the entries made in the log during each month shall be submitted along with the monthly SMR. If the Discharger finds itself in violation of the Disposal Pond Operating Specifications in Special Provision VI.C.4.c of this Order, the Discharger shall briefly explain the action taken or to be taken to correct the violation. The Discharger shall certify in each annual report that it is in compliance with the Disposal Pond Operating Specifications.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. Upon written request of the Central Valley Water Board, the Discharger shall submit a summary monitoring report. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year(s).
3. **Compliance Time Schedules.** For compliance time schedules included in the Order, the Discharger shall submit to the Central Valley Water Board, on or before each compliance due date, the specified document or a written report detailing compliance or noncompliance with the specific date and task. If noncompliance is reported, the Discharger shall state the reasons for noncompliance and include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board by letter when it returns to compliance with the compliance time schedule.

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4. The Discharger shall report to the Central Valley Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "*Emergency Planning and Community Right to Know Act*" of 1986.

B. Self-Monitoring Reports (SMR's)

1. The Discharger shall electronically submit SMR's using the State Water Board's California Integrated Water Quality System (CIWQS) Program website http://www.waterboards.ca.gov/water_issues/programs/ciwqs/. The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.
2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly SMR's including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. SMR's are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR. Monthly SMR's are required even if there is no discharge. If no discharge occurs during the month, the monitoring report must be submitted stating that there has been no discharge.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-10. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	Submit with monthly SMR
When switching discharge points	Permit effective date	All	Submit with monthly SMR
1/Day	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
5/Week	Permit effective date	Sunday through Saturday	Submit with monthly SMR
3/Week	Permit effective date	Sunday through Saturday	Submit with monthly SMR
2/Week	Permit effective date	Sunday through Saturday	Submit with monthly SMR
1/Week	Permit effective date	Sunday through Saturday	Submit with monthly SMR
1/Month	Permit effective date	1 st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling

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Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
1/Quarter	Permit effective date	1 January through 31 March 1 April through 30 June 1 July through 30 September 1 October through 31 December	1 May 1 August 1 November 1 February of following year
2/Year	Permit effective date	1 January through 30 June 1 July through 31 December	1 August 1 February of following year
1/Year	Permit effective date	1 January through 31 December	1 February of following year

4. **Reporting Protocols.** The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current laboratory's Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. part 136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (\pm a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

- Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
 - Dischargers are to instruct laboratories to establish calibration standards so that the Minimum Level (ML) value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
5. **Multiple Sample Data.** When determining compliance with an average monthly effluent limitation (AMEL), average weekly effluent limitation (AWEL), or maximum daily effluent limitation (MDEL) and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:
- The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

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- b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.
6. The Discharger shall submit SMR's in accordance with the following requirements:
 - a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
 - b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the waste discharge requirements; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.
 - c. The Discharger shall attach all laboratory analysis sheets, including quality assurance/quality control information, with all its SMR's for which sample analyses were performed. This requirement applies to samples analyzed pursuant to this MRP, section I.F. Providing final laboratory reports, or equivalent, for chemical, bacteriological, and bioassay analyses, conducted by a laboratory accredited by DDW, that reports the Discharger's sample result(s) and results of quality assurance/quality control analyses applicable to the samples tested, can be used to fully satisfy this requirement.
7. The Discharger shall submit in the SMR's calculations and reports in accordance with the following requirements:
 - a. **Calendar Annual Average.** For constituents which specify "calendar annual average" (electrical conductivity), the Discharger shall report the calendar annual average in the December SMR. The annual average shall be calculated as the average of the samples gathered for the calendar year.
 - b. **Mass Loading Limitations.** For BOD, TSS, mercury, and ammonia, the Discharger shall calculate and report the mass loading (lbs/day) in the SMR's. The mass loading shall be calculated as follows:
$$\text{Mass Loading (lbs/day)} = \text{Flow (MGD)} \times \text{Concentration (mg/L)} \times 8.34$$
When calculating daily mass loading, the daily average flow and constituent concentration shall be used. For weekly average mass loading, the weekly average flow and constituent concentration shall be used. For monthly average mass loading, the monthly average flow and constituent concentration shall be used.
 - c. **Removal Efficiency (BOD₅ and TSS).** The Discharger shall calculate and report the percent removal of BOD₅ and TSS in the SMR's. The percent removal shall be calculated as specified in Section VII.A. of the Waste Discharge Requirements.
 - d. **Total Coliform Organisms Effluent Limitations.** The Discharger shall calculate and report the 7-day median of total coliform organisms for the effluent. The 7-day

median of total coliform organisms shall be calculated as specified in Section VII.D of the Waste Discharge Requirements.

- e. **Dissolved Oxygen Receiving Water Limitations.** The Discharger shall calculate and report monthly in the SMR: i) the dissolved oxygen concentration, ii) the percent saturation in the main water mass, and iii) the 95th percentile dissolved oxygen concentration.
 - f. **Turbidity Receiving Water Limitations.** The Discharger shall calculate and report the turbidity increase in the receiving water applicable to the natural turbidity condition specified in Section V.A.17.a-e. of the Waste Discharge Requirements.
 - g. **Temperature Receiving Water Limitations.** The Discharger shall calculate and report the temperature increase in the receiving water based on the difference in temperature at Monitoring Locations RSW-001 and RSW-002 when discharging at Discharge Point 001.
 - h. **Total Calendar Annual Mass Loading Mercury Effluent Limitations.** The Discharger shall calculate and report the total calendar annual mercury mass loading for the effluent in the December SMR. The total calendar annual mass loading values shall be calculated as specified in section VII.B of the Waste Discharge Requirements.
 - i. **Chlorpyrifos and Diazinon Effluent Limitations.** The Discharger shall calculate and report the value of S_{AMEL} and S_{AWEL} for the effluent, using the equations in sections IV.A.1.h of the Order, and consistent with the Compliance Determination Language in section VII.I of the Waste Discharge Requirements.
- C. **Discharge Monitoring Reports (DMR's)**
- DMR's are U.S. EPA reporting requirements. The Discharger shall electronically certify and submit DMR's together with SMR's using Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic DMR submittal will be in addition to electronic SMR submittal. Information about electronic DMR submittal is available at the DMR website at: (http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring/).
- D. **Other Reports**
- 1. **Annual Operations Report.** The Discharger shall submit a written report to the Central Valley Water Board, electronically via CIWQS submittal, containing the following by the due date in the Technical Reports Table:
 - a. The names, certificate grades, and general responsibilities of all persons employed at the Facility.
 - b. The names and telephone numbers of persons to contact regarding the plant for emergency and routine situations.
 - c. A statement certifying when the flow meter(s) and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration.
 - d. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the wastewater treatment plant as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.
 - e. The Discharger may also be requested to submit an annual report to the Central Valley Water Board with both tabular and graphical summaries of the monitoring

data obtained during the previous year. Any such request shall be made in writing. The report shall discuss the compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.

2. **Annual Pretreatment Reporting Requirements.** The Discharger shall submit annually a report to the Central Valley Water Board, with copies to U.S. EPA Region 9 and the State Water Board, describing the Discharger's pretreatment activities over the previous 12 months (1 January through 31 December). In the event that the Discharger is not in compliance with any conditions or requirements of this Order, including noncompliance with pretreatment audit/compliance inspection requirements, then the Discharger shall also include the reasons for noncompliance and state how and when the Discharger shall comply with such conditions and requirements.

An annual report shall be submitted by the due date shown in the Technical Reports Table and include at least the following items:

- a. A summary of analytical results from representative, flow proportioned, 24-hour composite sampling of the POTW's influent and effluent for those pollutants U.S. EPA has identified under section 307(a) of the CWA which are known or suspected to be discharged by nondomestic users. This will consist of an annual full priority pollutant scan. The Discharger is not required to sample and analyze for asbestos. The Discharger shall submit the results of the annual priority pollutant scan electronically to the Central Valley Water Board using the State Water Board's CIWQS Program Website.

Sludge shall be sampled at BIO-001 during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling and analysis. The sludge analyzed shall be a composite sample of a minimum of 12 discrete samples taken at equal time intervals over the 24-hour period. Wastewater and sludge sampling and analysis shall be performed at least annually. The Discharger shall also provide any influent, effluent or sludge monitoring data for nonpriority pollutants which may be causing or contributing to Interference, Pass-Through or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 C.F.R. part 136 and amendments thereto.

- b. A discussion of Upset, Interference, or Pass-Through incidents, if any, at the treatment plant, which the Discharger knows or suspects were caused by nondomestic users of the POTW. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of, the nondomestic user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent Pass-Through, Interference, or noncompliance with sludge disposal requirements.
- c. The cumulative number of nondomestic users that the Discharger has notified regarding Baseline Monitoring Reports and the cumulative number of nondomestic user responses.
- d. An updated list of the Discharger's significant industrial users (SIUs) including their names and addresses, or a list of deletions, additions and SIU name changes keyed to a previously submitted list. The Discharger shall provide a brief explanation for each change. The list shall identify the SIUs subject to federal categorical standards by specifying which set(s) of standards are applicable to each SIU. The list shall indicate which SIUs, or specific pollutants from each industry, are subject to local

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limitations. Local limitations that are more stringent than the federal categorical standards shall also be identified.

- e. The Discharger shall characterize the compliance status through the year of record of each SIU by employing the following descriptions:
 - i. complied with baseline monitoring report requirements (where applicable);
 - ii. consistently achieved compliance;
 - iii. inconsistently achieved compliance;
 - iv. significantly violated applicable pretreatment requirements as defined by 40 C.F.R. section 403.8(f)(2)(vii);
 - v. complied with schedule to achieve compliance (include the date final compliance is required);
 - vi. did not achieve compliance and not on a compliance schedule; and
 - vii. compliance status unknown.
- f. A summary of the inspection and sampling activities conducted by the Discharger during the past year to gather information and data regarding the SIUs. The summary shall include:
 - i. The names and addresses of the SIUs subjected to surveillance and an explanation of whether they were inspected, sampled, or both and the frequency of these activities at each user; and
 - ii. The conclusions or results from the inspection or sampling of each industrial user.
- g. The Discharger shall characterize the compliance status of each SIU by providing a list or table which includes the following information:
 - i. Name of SIU;
 - ii. Category, if subject to federal categorical standards;
 - iii. The type of wastewater treatment or control processes in place;
 - iv. The number of samples taken by the POTW during the year;
 - v. The number of samples taken by the SIU during the year;
 - vi. For an SIU subject to discharge requirements for total toxic organics, whether all required certifications were provided;
 - vii. A list of the standards violated during the year. Identify whether the violations were for categorical standards or local limits.
 - viii. Whether the facility is in significant noncompliance (SNC) as defined at 40 C.F.R. section 403.8(f)(2)(viii) at any time during the year; and
 - ix. A summary of enforcement or other actions taken during the year to return the SIU to compliance. Describe the type of action (e.g., warning letters or notices of violation, administrative orders, civil actions, and criminal actions), final compliance date, and the amount of fines and penalties collected, if any. Describe any proposed actions for bringing the SIU into compliance;
 - x. Restriction of flow to the POTW.
 - xi. Disconnection from discharge to the POTW.

- h. A brief description of any programs the POTW implements to reduce pollutants from nondomestic users that are not classified as SIUs;
- i. A brief description of any significant changes in operating the pretreatment program which differ from the previous year including, but not limited to, changes concerning: the program's administrative structure, local limits, monitoring program or monitoring frequencies, legal authority, enforcement policy, funding levels, or staffing levels;
- j. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases; and
- k. A summary of activities to involve and inform the public of the program including a copy of the newspaper notice, if any, required under 40 C.F.R. section 403.8(f)(2)(viii).

Pretreatment Program reports shall be submitted electronically to the Central Valley Water Board via CIWQS submittal and the:

State Water Resources Control Board
NPDES Wastewater@waterboards.ca.gov
and the
U.S. EPA Region 9 Pretreatment Coordinator
R9Pretreatment@epa.gov

3. **Technical Report Submittals.** This Order includes requirements to submit a Report of Waste Discharge (ROWD), special study technical reports, progress reports, and other reports identified in the MRP (hereafter referred to collectively as "technical reports"). The Technical Reports Table below summarizes all technical reports required by this Order and the due dates for submittal. All technical reports shall be submitted electronically via CIWQS submittal. Technical reports should be uploaded as a PDF, Microsoft Word, or Microsoft Excel file attachment.

Table E-11. Technical Reports

Report #	Technical Report	Due Date	CIWQS Report Name
Standard Reporting Requirements			
1	Report of Waste Discharge	31 March 2023	ROWD
2	Analytical Methods Report	8 April 2019	MRP IX.D.4
3	Most Sensitive Species Screening	31 March 2023 ¹	MRP V.E
4	Annual Operations Report	30 January 2020	MRP X.D.2
5		30 January 2021	MRP X.D.2
6		30 January 2022	MRP X.D.2
7		30 January 2023	MRP X.D.2
8		30 January 2024	MRP X.D.2
Other Reports			
9	Low Dissolved Oxygen Assessment Work Plan and Time Schedule	No later than 1 year from startup of discharge at the proposed diffuser	WDR VI.C.2.b.i
10	Low Dissolved Oxygen Assessment Final Report	Within 3 years and 6 months following Work Plan approval	WDR VI.C.2.b.ii
12	Antidegradation Analysis Report	1 April 2021	WDR VI.C.2.c

Report #	Technical Report	Due Date	CIWQS Report Name
13	Salinity Evaluation and Minimization Plan Summary Report	31 March 2023	WDR VI.C.3.a
14	Diffuser Maintenance Technical Report	1 July 2019 ²	WDR VI.C.4.b
15		1 July 2020 ²	WDR VI.C.4.b
16		1 July 2021 ²	WDR VI.C.4.b
17		1 July 2022 ²	WDR VI.C.4.b
18		1 July 2023 ²	WDR VI.C.4.b
19	Annual Pretreatment Reports	28 February 2020	MRP X.D.3
20		28 February 2021	MRP X.D.3
21		28 February 2022	MRP X.D.3
22		28 February 2023	MRP X.D.3
23		28 February 2024	MRP X.D.3

¹ To be submitted with the Report of Waste Discharge if no significant changes occur in the nature of the discharge during the permit term.

² If the Feather River flow is not lower than 1 foot above the diffuser at its deepest location in the Feather River by 1 July, the Discharger shall submit a letter to the Central Valley Water Board demonstrating that Feather River flows are unsafe for the assessment and shall submit the technical report no later than 30 days after assessment or corrective actions have taken place.

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ATTACHMENT F – FACT SHEET

As described in section II.B of this Order, the Central Valley Water Board incorporates this Fact Sheet as findings of the Central Valley Water Board supporting the issuance of this Order. This Fact Sheet discusses the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as “not applicable” have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as “not applicable” are fully applicable to this Discharger.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the Facility.

Table F-1. Facility Information

WDID	5A510101001
CIWQS Facility Place ID	274556
Discharger	City of Yuba City
Name of Facility	Wastewater Treatment Facility
Facility Address	302 Burns Drive
	Yuba City, CA 95991
	Sutter County
Facility Contact, Title and Phone	Michael Finnigan, Wastewater Treatment Facility Supervisor, (530) 822-7696
Authorized Person to Sign and Submit Reports	Michael Finnigan, Wastewater Treatment Facility Supervisor, (530) 822-7696
Mailing Address	Same as Facility Address
Billing Address	Same as Facility Address
Type of Facility	Publicly Owned Treatment Works (POTW)
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	Yes
Recycling Requirements	Not Applicable
Facility Permitted Flow	10.5 million gallons per day (MGD), average dry weather flow
Facility Design Flow	10.5 MGD
Watershed	Lower Feather
Receiving Water	Feather River
Receiving Water Type	Inland surface water

- A. The City of Yuba City (hereinafter Discharger) is the owner and operator of the City of Yuba City Wastewater Treatment Facility, (hereinafter Facility), a POTW.

For the purposes of this Order, references to the “discharger” or “permittee” in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

- B. The Facility discharges wastewater to the Feather River, a water of the United States, within the Lower Feather River watershed. The Discharger was previously regulated by Order R5-2013-0094-01 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0079260 adopted on 25 July 2013, amended on 31 May 2018, and expired on 1 July 2018. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.
- C. When applicable, state law requires dischargers to file a petition with the State Water Board, Division of Water Rights and receive approval for any change in the point of discharge, place of use, or purpose of use of treated wastewater that decreases the flow in any portion of a watercourse. The State Water Board retains separate jurisdictional authority to enforce any applicable requirements under Water Code section 1211. This is not an NPDES permit requirement.
- D. The Discharger filed a report of waste discharge (ROWD) and submitted an application for reissuance of its waste discharge requirements (WDR's) and NPDES permit on 29 December 2017. The application was deemed complete on 4 May 2018. A site visit was conducted on 16 August 2017, to observe operations and collect additional data to develop permit limitations and requirements for waste discharge.
- E. Regulations at 40 C.F.R. section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 3 of this Order limits the duration of the discharge authorization. Under 40 C.F.R. section 122.6(d), States authorized to administer the NPDES program may administratively continue State-issued permits beyond their expiration dates until the effective date of the new permits, if State law allows it. Pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits.

II. FACILITY DESCRIPTION

The Discharger provides sewerage service for the City of Yuba City and serves a population of approximately 53,000. In addition, the Facility accepts septage from unsewered portions of Sutter and Yuba Counties. The design average dry weather flow capacity of the Facility is 10.5 MGD.

Municipal and industrial wastewater treated at the Facility is either discharged to the Feather River or to disposal ponds within the levee on the eastern side of the Feather River. The Facility also uses treated wastewater for multiple processes including the spray system on primary and secondary clarifiers and belt filter presses, makeup water for polymers, reheating oxygen, and hosing down facilities in addition to landscape irrigation of 3.5 acres at the Facility. The ROWD estimates the seasonal dependent annual average daily volume used for reuse to be 0.5 MGD.

A. Description of Wastewater and Biosolids Treatment and Controls

The treatment system at the Facility consists of bar screening; aerated grit removal, primary clarification, pure oxygen aeration, secondary clarification, and chlorine disinfection. For discharges to the Feather River at Discharge Point 001, wastewater is dechlorinated using sodium bisulfite prior to discharge. The pure oxygen aeration process at the Facility, which includes three covered high purity oxygen basins, was designed to handle high and variable biochemical oxygen demand (BOD) loadings from local food processing facilities, commercial facilities, and residential areas. Among other benefits such as reductions in odor and sludge volumes, the primary advantage of pure oxygen aeration processes is that they provide a higher efficiency in oxygen transfer compared to conventional atmospheric air. Decreases in pH are typical for pure oxygen aeration systems as wastewater becomes supersaturated with carbon dioxide, so diffused air stripping is used to remove majority of saturated carbon dioxide and sodium hydroxide is used, if needed, in the chlorine contact basins. Additionally,

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approximately 50 percent of the BOD loading to the Facility is from one significant industrial user (Sunsweet Growers) that discharges a nutritionally dilute industrial discharge. Polyammonium phosphate is added at the inlet box to aeration basins, as needed, to ensure adequate food-to-microorganisms ratio in the activated sludge (pure oxygen) process.

All storm water is directed to an on-site storm water basin where it may be directed to the headworks. The Discharger is permitted for storm water under the State Water Board's Industrial Storm Water General Order.

Biosolids are thickened using rotary drum thickeners and then anaerobically digested in two digesters. Digested biosolids are dewatered by belt filter press and disposed of off-site as landfill cover material. The facility produces approximately 1,200 dry metric tons of dried biosolids annually. Transportation and disposal/reuse of the biosolids is regulated by U.S. EPA under 40 C.F.R. part 503.

The Facility is equipped with three composite bed biofilters that are used to control odors from headworks, primary clarification, and dewatering building operations.

Secondary-level treated effluent from the Facility may be discharged to the Feather River via a multiport diffuser at Discharge Point 001 or may be directed to a series of six disposal ponds located within the Feather River levee. Each disposal pond is roughly 1 million square feet in size; the total capacity of the six disposal ponds is approximately 179 million gallons. At the ponds, the depth to groundwater is approximately 30 feet. The Facility can discharge to any pond at any time. There is no operational plan on which disposal pond to use and when. The Facility's historical goal is to have all disposal ponds dry by 1 November of each year provided an operational outfall.

The six disposal ponds are at varying elevations such that the flow will cascade from the first pond to the last pond depending on the water level of the pond (Pond 1 is the highest elevation and Pond 6 is the lowest elevation). When flooding occurs Pond 6 will receive flood waters first, then Pond 5, etc. Due to the limitations on discharges to Discharge Point 001 and, consequently, increased discharge to the ponds, the ponds may exceed their capacity during and following large storm events.

In October 2011, the Feather River at Shanghai Falls eroded to form a new path for water. Subsequently, the high water from storms in 2016 and 2017 and the Oroville Dam Incident increased the erosion significantly. In order to ensure that discharges to the Feather River via the diffuser at Discharge Point 001 receive adequate dilution, this Order prohibits discharges at Discharge Point 001 when the depth of water over the diffuser is less than an average of 0.8 feet, which corresponds to a receiving water flow of approximately 10,000 cubic feet per second (cfs). When the depth of water over the diffuser is less than an average of 0.8 feet, the Discharger must discharge to the disposal ponds at Discharge Point 002.

Due to the Oroville Dam Incident and storms in 2016 and 2017, the sediment was deposited into the disposal ponds, and the disposal pond berms were damaged. The Discharger has been granted funding from the Federal Emergency Management Agency under the Hazard Mitigation Grant to add rip rap to disposal pond berm slopes, remove disposal pond sediment, and repair the disposal ponds' bottoms for improved percolation in disposal ponds 3 through 6. In order to complete the repairs, four of the six disposal ponds will need to be adequately dry to allow heavy equipment to enter the ponds. In order to complete the work, the Discharger will need to dry the proposed disposal ponds starting in February of the year construction is to begin and has projected construction activities to take place during the summer of either 2019 or 2020 depending on timing of funding, weather, etc.

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B. Discharge Points and Receiving Waters

1. The Facility is located in Section 7-010-001, T15N, R3E, MDB&M, as shown in Attachment B, a part of this Order.
2. Treated municipal and industrial wastewater is discharged at Discharge Point 001 to the Feather River, a water of the United States at a point latitude 39° 05' 30.29" N and longitude 121° 35' 53.79" W. According to the mixing zone analysis provided as part of Order R5-2007-0134, the multi-port diffuser is located above the normal bank of the Feather River. The diffuser consists of 40 ports each of 3 inches in diameter, located 4 feet on center. The total diffuser length is 156 feet.
3. The wastewater may also be discharged to one of six disposal ponds located within the floodplain of the Feather River to the Feather River at a point latitude 39° 05' 17.60" N and longitude 121° 35' 47.71" W at Discharge Point 002.

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

Effluent limitations contained in Order R5-2013-0094-01 for discharges from Discharge Points 001 and 002 and representative monitoring data for discharges from Discharge Points 001 and 002 (Monitoring Location EFF-001/EFF-002) from the term of Order R5-2013-0094-01 are summarized in the following table.

Table F-2. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Effluent Limitation			Monitoring Data (June 2014 to May 2017)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Flow	MGD	--	--	10.5 ¹	--	--	8.6 ²
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	30	45	60	13.5	20	34
	lbs/day ³	2,627	3,941	5,254	604	841	1,451
	% Removal	85	--	--	96.9 ⁴	--	--
pH	standard units	--	--	6.5 ⁵ – 8.5	--	--	6.4 – 9.6
Total Suspended Solids	mg/L	30	45	60	14.9	21.1	39
	lbs/day ³	2,627	3,941	5,254	671	947	1,779
	% Removal	85	--	--	95.1 ⁴	--	--
Bis (2-ethylhexyl) Phthalate	µg/L	27	--	82	1.8	--	1.9
Copper, Total Recoverable	µg/L	50	--	85	8.3	--	8.5
Dichlorobromomethane	µg/L	10	--	30	1.4	--	1.4
Lead, Total Recoverable	µg/L	2.1	--	3.3	0.52	--	0.52
Ammonia Nitrogen, Total (as N)	mg/L	31	--	60	32.2	--	50
	lbs/day ³	2,715	--	5,254	1,238	--	2,361
Nitrite Nitrogen, Total (as N)	mg/L	11	--	--	0.7	--	--
Settleable Solids ⁶	ml/L	0.1	--	0.2	ND	--	30
Chlorine, Total Residual ⁶	mg/L	--	0.011 ⁷	0.019 ⁸	--	--	ND

Parameter	Units	Effluent Limitation			Monitoring Data (June 2014 to May 2017)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Total Coliform Organisms	MPN/100 mL	--	23 ⁹	240 ¹⁰	--	--	170
Mercury, Total Recoverable	lbs/month	0.056 ¹¹	--	--	0.030	--	--
Diazinon and Chlorpyrifos	µg/L	12	--	13	ND	--	ND
Manganese, Total Recoverable	µg/L	200 ¹⁴	--	--	29.4 ¹⁵	--	--
Acute Toxicity	% Survival	--	--	70 ¹⁶ /90 ¹⁷	--	--	85 ¹⁸
Chronic Toxicity	TUc	--	--	19	--	--	>47.6 ²⁰

ND = Non-Detect

- ¹ Applied as an average dry weather flow effluent limitation.
- ² Represents the maximum observed daily discharge flow.
- ³ Mass-based effluent limitations are based on a permitted average dry weather flow of 10.5 MGD.
- ⁴ Represents the minimum reported percent removal.
- ⁵ The instantaneous minimum effluent limitation for pH is limited to 6.0 standard units for discharges at Discharge Point 002.
- ⁶ Applicable at Discharge Point 001 only.
- ⁷ Applied as a 4-day average effluent limitation.
- ⁸ Applied as a 1-hour average effluent limitation.
- ⁹ Applied as a 7-day median effluent limitation.
- ¹⁰ Not to be exceeded more than once in any 30-day period.
- ¹¹ The total monthly mass discharge of total mercury shall not exceed 0.056 lbs.
- ¹² Average Monthly Effluent Limitation

$$S_{AMEL} = \frac{C_{D\ avg}}{0.079} + \frac{C_{C\ avg}}{0.012} \leq 1.0$$

$$C_{D\ avg} = \text{average monthly diazinon effluent concentration in } \mu\text{g/L.}$$

$$C_{C\ avg} = \text{average monthly chlorpyrifos effluent concentration in } \mu\text{g/L.}$$
- ¹³ Maximum Daily Effluent Limitation

$$S_{MDEL} = \frac{C_{D\ max}}{0.16} + \frac{C_{C\ max}}{0.025} \leq 1.0$$

$$C_{D\ max} = \text{maximum daily diazinon effluent concentration in } \mu\text{g/L.}$$

$$C_{C\ max} = \text{maximum daily chlorpyrifos effluent concentration in } \mu\text{g/L.}$$
- ¹⁴ Applied as an annual average effluent limitation.
- ¹⁵ Represents the maximum reported calendar year annual average concentration in calendar years 2014 through 2016, which occurred in calendar year 2014.
- ¹⁶ Minimum percent survival for any one bioassay.
- ¹⁷ Median percent survival of three consecutive acute bioassays.
- ¹⁸ Represents the minimum observed percent survival.
- ¹⁹ There shall be no chronic toxicity in the effluent discharge.
- ²⁰ Suspected pathogen interference.

D. Compliance Summary

1. The Central Valley Water Board issued Administrative Civil Liability (ACL) Complaint No. R5-2013-0530 on 26 April 2013 which proposed to assess an administrative civil liability in the amount of \$6,000 against the Discharger for two effluent limitations violation for

settleable solids and diazinon from 1 March 2011 to 31 December 2012. The Discharger paid the mandatory minimum penalty of \$6,000.

2. The Central Valley Water Board issued ACL Complaint No. R5-2014-0555 on 8 September 2014 which proposed to assess an administrative civil liability in the amount of \$30,000 against the Discharger for ten effluent limitations violation for settleable solids, pH, and total residual chlorine from 1 January 2013 to 31 March 2014. The Discharger paid the mandatory minimum penalty of \$30,000.
3. The Central Valley Water Board issued ACL Complaint No. R5-2015-0531 on 14 September 2015 which proposed to assess an administrative civil liability in the amount of \$12,000 against the Discharger for five effluent limitations violation for settleable solids, pH, and total coliform from 1 April 2014 to 30 June 2015. The Discharger paid the mandatory minimum penalty of \$12,000.
4. A compliance inspection of the Facility was conducted on 30 October 2014. No major findings were reported.

E. Planned Changes

The Feather River channel has shifted in the vicinity of Discharge Point 001 such that, at normal non-storm event flows, the diffuser is no longer submerged. In order to ensure that discharges to the Feather River via the diffuser at Discharge Point 001 receive adequate dilution, this Order prohibits discharges at Discharge Point 001 when the depth of water over the diffuser is less than average of 0.8 feet, which corresponds to a receiving water flow of 10,000 cfs. To regain the ability to discharge to the river under all river flows, the Discharger is proposing to locate and install a new diffuser downstream of Shanghai Falls in the deeper, more stable stretch of the river. The proposed configuration of the piping would allow the treated effluent to be discharged to the ponds, the river, or a combination of both which would also add operational flexibility. The Discharger estimates a 5-year schedule will be necessary to locate, design, permit, fund, and construct a new diffuser. The Discharger included preliminary modeling of dilution for the proposed diffuser, *2017 CORMIX Update for Proposed Diffuser in Feather River*, dated 16 December 2017, prepared by Larry Walker Associates, but has not requested that the new discharge location be considered for inclusion in this Order. Prior to discharging at a new location, the Discharger must submit a new ROWD and antidegradation analysis. Additionally, requests for mixing zones/dilution credits and effluent limitations based on dynamic modeling must be supported by new studies specific to the new discharge location.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order serves as WDR's pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this Facility to surface waters.

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of Division 13 of the Public Resources Code.

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C. State and Federal Laws, Regulations, Policies, and Plans

1. **Water Quality Control Plan.** Requirements of this Order specifically implement the applicable Water Quality Control Plans.
 - a. **Basin Plan.** The Central Valley Water Board adopted a Water Quality Control Plan for the Water Quality Control Plan, Fifth Edition (Revised May 2018), for the Sacramento and San Joaquin River Basins (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plan. In addition, the Basin Plan implements State Water Board Resolution 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to Feather River are as follows:

Table F-3. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001 and 002	Feather River	<u>Existing:</u> Municipal and domestic supply (MUN); agricultural supply, including irrigation (AGR); water contact recreation, including canoeing and rafting (REC 1); non-contact water recreation (REC-2); warm freshwater habitat (WARM); cold freshwater habitat (COLD); warm and cold migration of aquatic organisms (MIGR); warm and cold spawning, reproduction, and/or early development (SPWN); and wildlife habitat (WILD).
002	Groundwater	<u>Existing:</u> Municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); and industrial process supply (PROC).

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA adopted the NTR on 22 December 1992, and later amended it on 4 May 1995 and 9 November 1999. About forty criteria in the NTR applied in California. On 18 May 2000, U.S. EPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on 13 February 2001. These rules contain federal water quality criteria for priority pollutants.
3. **State Implementation Policy.** On 2 March 2000, the State Water Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). The SIP became effective on 28 April 2000, with respect to the priority pollutant criteria promulgated for California by the U.S. EPA through the NTR and to the priority pollutant objectives established by the Central Valley Water Board in the Basin Plan. The SIP became effective on 18 May 2000, with respect to the priority pollutant criteria promulgated by the U.S. EPA through the CTR. The State Water Board adopted amendments to the SIP on 24 February 2005, that became effective on 13 July 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.
4. **Antidegradation Policy.** Federal regulation 40 C.F.R. section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal

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